

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

[Docket No. NHTSA-2016-0025; Notice 2]

BMW of North America, LLC, Grant of Petition for Decision of Inconsequential Noncompliance

AGENCY: National Highway Traffic Safety Administration (NHTSA),
Department of Transportation (DOT).

ACTION: Grant of Petition.

SUMMARY: BMW of North America, LLC (BMW), has determined that certain model year (MY) 2016 BMW 7 Series motor vehicles do not fully comply with Federal Motor Vehicle Safety Standard (FMVSS) No. 108, Lamps, reflective devices and associated equipment. BMW filed a noncompliance report dated January 21, 2016. BMW also petitioned NHTSA on February 12, 2016, for a decision that the subject noncompliance is inconsequential as it relates to motor vehicle safety.

FOR FURTHER INFORMATION CONTACT: For further information on this decision contact Leroy Angeles, Office of Vehicle Safety

Compliance, the National Highway Traffic Safety Administration

(NHTSA), telephone (202) 366-5304, facsimile (202) 366-5930.

SUPPLEMENTARY INFORMATION:

I. Overview: BMW of North America, LLC (BMW), has determined that certain model year (MY) 2016 BMW 7 Series motor vehicles do

not fully comply with paragraph S7.7.13.3 of Federal Motor
Vehicle Safety Standard (FMVSS) No. 108, Lamps, reflective
devices and associated equipment. BMW filed a noncompliance
report dated January 21, 2016, pursuant to 49 CFR part 573,
Defect and Noncompliance Responsibility and Reports. BMW also
petitioned NHTSA on February 12, 2016, pursuant to 49 U.S.C.
30118(d) and 30120(h) and 49 CFR part 556), for an exemption
from the notification and remedy requirements of 49 U.S.C.
Chapter 301 on the basis that this noncompliance is
inconsequential as it relates to motor vehicle safety.

Notice of receipt of the petition was published with a 30-day public comment period, on March 4, 2016, in the <u>Federal</u>

<u>Register</u> (81 FR 11645). One comment was received. To view the petition, comments and all supporting documents log onto the Federal Docket Management System (FDMS) website at:

https://www.regulations.gov/. Then follow the online search instructions to locate docket number "NHTSA-2016-0025."

- II. Vehicles Involved: Approximately 5,076 MY 2016 BMW 7 Series passenger cars, which were manufactured between August 03, 2015, and November 20, 2015, are potentially involved.
- III. Noncompliance: BMW states that the rear license plate lamp may not fully conform to paragraph S7.7.13.3 of FMVSS No. 108 because it exceeds the illumination ratio specified in that paragraph.

IV. Rule Text: Paragraph S7.7.13.3 of FMVSS No. 108 requires, in pertinent part:

S7.7.13.3 The ratio of the average of the two highest illumination values divided by the average of the two lowest illumination values must not exceed 20:1 for vehicles other than motorcycles and motor driven cycles.

- V. Summary of BMW's Petition: BMW described the subject noncompliance and stated its belief that the noncompliance is inconsequential to motor vehicle safety for the following reasons:
 - The out-of-specification lamps satisfy all other requirements of FMVSS No. 108.
 - The out-of-specification lamps only deviate from paragraph 7.7.13.3 of FMVSs No. 108 with regard to the lamp's illumination ratio and not the lamp's actual illumination.
 - Personnel who participated in a company assessment reported no difference in their visual perception of the simulated license plates that were used as test specimens.
 - BMW has not received any customer complaints related to the issue.
 - BMW is not aware of any accidents or injuries related to this issue.

- NHTSA has previously granted petitions in which the illumination of test points remains well above the requirements.
- Vehicle production has been corrected.

In support of its petition, BMW submitted the following information pertaining to laboratory testing and analysis of the subject noncompliance:

- report dated April 7, 2015 pertaining to lamps manufactured by U-SHIN Italia S.p.A. (U-SHIN) prior to vehicle production. According to BMW, this report indicates that the lamp satisfies FMVSS No. 108 requirements, as the ratio of the average of the two highest illumination values divided by the average of the two lowest illumination value is 14.1, and FMVSS No. 108 requires that the value be less than 20.
- Evaluation by Measurement Equipment: Both BMW and U-SHIN performed a number of tests of both in-specification and out-of-specification lamps to assess the performance of the subject lamps to the pertinent requirement of FMVSS No.

 108. BMW submitted one representative test report for each test condition. The results are as follows:
 - <u>U-SHIN out-of-specification lamp tests:</u> These showed an illumination ratio of 22.0. BMW noted, however, that each

- of the eight (8) test points satisfies the applicable FMVSS No. 108 photometric (illumination) requirements.
- BMW out-of-specification lamp tests: BMW performed its own out-of-specification tests to verify U-SHIN's test results and to obtain results for the lamps when equipped within a vehicle. These showed an illumination ratio of 22.2. BMW noted, however, that each of the eight (8) test points satisfies the applicable FMVSS No. 108 photometric (illumination) requirements.
- <u>U-SHIN in-specification lamp tests:</u> These showed an illumination ratio of 13.8. As with the previously described tests, BMW noted, however, that each of the eight (8) test points satisfies the applicable FMVSS No. 108 photometric (illumination) requirements.
- BMW in-specification tests: BMW performed their own inspecification tests to verify U-SHIN's test results and to
 obtain results for the lamps when equipped within a

 vehicle. These showed an illumination ratio of 13.9. BMW
 again noted, however, that each of the eight (8) test
 points satisfies the applicable FMVSS No. 108 photometric
 (illumination) requirements.
- (3) Evaluation by human assessment: In addition to the laboratory testing performed by both BMW and U-SHIN using specific lamp measurement equipment, BMW also compared the

out-of-specification lamps to the in-specification lamps via human assessment. BMW performed this assessment to determine whether or not the condition caused by the non-compliance was perceptible to other road users (i.e., drivers approaching an affected vehicle) and, if so, its effect on safety.

BMW submitted photographs that depict the illumination of a test specimen simulating a rear license plate by both in-specification and out-of-specification lamps. According to BMW, while there may be a slightly perceptible difference in the photographs depicting the test specimen illuminated by in-specification and out-of-specification lamps, this is due to tolerances of the camera equipment related to exposure time and shutter speed. BMW stated that the personnel who participated in this assessment reported no difference in their visual perception of the test specimens.

Additionally, BMW noted that even for the out-of-specification lamp, all of the eight (8) test points satisfy the applicable FMVSS No. 108 photometric (illumination) requirements. BMW emphasized that the noncompliance pertains to the illumination ratio, not to the actual lamp illumination. As a consequence, BMW asserts that while the noncompliance condition can be

measured in a laboratory, it cannot be detected by the human eye, and therefore drivers of approaching vehicles will be afforded the same level of visibility as if approaching a non-affected vehicle. According to BMW, these analyses support the conclusion that the condition caused by the noncompliance does not affect the safety of affected vehicle occupants or other road users such as drivers approaching affected vehicles.

- (4) Field Experience: BMW states that its Customer Relations division has not received any contacts from vehicle owners regarding the matter at issue. As a consequence, BMW believes that, consistent with the results of the laboratory tests and human assessments described above, the condition is undetectable to road users such as drivers approaching affected vehicles. BMW further notes that it is not aware of any accidents or injuries that have occurred as a result of the condition.
- (5) Prior NHTSA Rulings: BMW states that NHTSA has previously granted petitions from other manufacturers involving various issues pertaining to FMVSS No. 108 noncompliance.

 BMW believes that in some of those petitions, the photometry (illumination) of the test points remains well above the FMVSS No. 108 requirements as the noncompliance has no affect upon the illumination of the test points.

(6) <u>Vehicle Production:</u> BMW stated that subsequent vehicle production has been corrected to conform to paragraph 7.7.13.3 of FMVSS No. 108.

In summation, BMW expressed the belief that the subject noncompliance is inconsequential to motor vehicle safety, and that its petition, to exempt BMW from providing notification of the noncompliance, as required by 49 U.S.C. 30118, and remedying the noncompliance, as required by 49 U.S.C. 30120, should be granted.

NHTSA'S DECISION:

Comments: One comment was received by Mr. Chris Janik. Mr. Janik said "This is a technical non-compliance that is based only on laboratory measurement and calculation of the illumination ratio. To me, the compelling argument to grant the petition is that there are no customer complaints regarding the issue and that the difference between license plate bulb that comply with the requirements and those that do not is not perceptible to anyone that is behind the vehicle. There is no unreasonable risk to motor vehicle safety, so this petition should clearly be granted"

NHTSA thanks Mr. Janik for his comment. NHTSA has reviewed the petition and made its decision based on the reasons described below.

NHTSA's Analysis: Based on test data provided by BMW, NHTSA found that the percent difference of the lamp's illumination ratio in the subject vehicles exceed the maximum requirement by 9% to 10.6%. Even though the lamps exceed the illumination ratio the lamps satisfy all other FMVSS No. 108 requirements. However, NTHSA is unable to verify the validity of BMW's claim that this difference cannot be detected by the human eye.

License plates are necessary on motor vehicles to allow law enforcement personnel and the general public to uniquely identify vehicles. When it is dark and motor vehicle lighting is in use, the required license plate lamp is necessary to illuminate the license plate on the rear of a vehicle so it can be identified. FMVSS No. 108 contains various photometric and geometric requirements for the purpose of assuring legibility of the license plate. One such requirement is the illumination ratio to protect against shadowing across the license plate, which could make the license plate difficult to read.

As in the case of BMW's petition, the burden of establishing the inconsequentiality of a failure to comply with a performance requirement in a standard is substantial and difficult to meet, and the agency has not found many such noncompliances to be inconsequential. However, one area in which the agency has granted such petitions has been where the noncompliance is expected to be imperceptible, or nearly so, to

vehicle occupants or approaching drivers. NHTSA found BMW's assessment of human visual perception of the test specimens to be interesting, yet insufficient to justify granting the petition. Instead NHTSA is relying on the test data which indicates that the license plate lamps on these vehicles exceeded the minimum photometric performance levels at each of the eight (8) test points by at least 37.5% and up to 191.3%. This data in conjunction with the fact that the ratio is slightly greater than required, NHTSA would agree that license plates illuminated with these lamps would be legible.

Furthermore, NHTSA reiterates that the lamp illumination ratio is an important performance measurement to ensure license plate legibility.

NHTSA's Decision: In consideration of the foregoing, NHTSA finds that BMW has met its burden of persuasion that the FMVSS No. 108 noncompliance is inconsequential as it relates to motor vehicle safety under these facts and circumstances. Accordingly, BMW's petition is hereby granted and BMW is consequently exempted from the obligation to provide notification of, and remedy for, the subject noncompliance in the affected vehicles under 49 U.S.C. 30118 and 30120.

NHTSA notes that the statutory provisions (49 U.S.C. 30118(d) and 30120(h)) that permit manufacturers to file petitions for a determination of inconsequentiality allow NHTSA

to exempt manufacturers only from the duties found in sections 30118 and 30120, respectively, to notify owners, purchasers, and dealers of a defect or noncompliance and to remedy the defect or noncompliance. Therefore, this decision only applies to the subject vehicles that BMW no longer controlled at the time it determined that the noncompliance existed. However, the granting of this petition does not relieve vehicle distributors and dealers of the prohibitions on the sale, offer for sale, or introduction or delivery for introduction into interstate commerce of the noncompliant vehicles under their control after BMW notified them that the subject noncompliance existed.

Authority: (49 U.S.C. 30118, 30120: delegations of authority at 49 CFR 1.95 and 501.8)

Jeffrey M. Giuseppe,

Associate Administrator for Enforcement.

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